

Appln no. 09/676,620  
Amendment dated July 20, 2005  
Reply to Office Action of May 4, 2005

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

1. (previously presented) A heptanoic acid antimicrobial composition comprising:  
0.01 to 5 wt. % heptanoic acid; and  
greater than 60 wt. % of a freezing point depressant component comprising propylene glycol and glycerin.
- 2-5. (canceled)
6. (previously presented) The antimicrobial composition of claim 1, wherein the freezing point depressant component consists of a mixture of propylene glycol and glycerin.
7. (original) The antimicrobial composition of claim 1, wherein the composition has a freezing point of below 32°F.
8. (original) The antimicrobial composition of claim 1, wherein the composition has a freezing point of below 20°F.
9. (original) The antimicrobial composition of claim 1, wherein the composition has a freezing point of below 10°F.
10. (original) The antimicrobial composition of claim 1, wherein the composition has a freezing point of below 0°F.
11. (original) The antimicrobial composition of claim 1, wherein the composition has a freezing point of below -10°F.

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12. (original) The antimicrobial composition of claim 1, wherein the composition has a freezing point of below -20°F.

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14. <sup>13</sup> (currently amended) The antimicrobial composition of claim 1, wherein the freezing point depressant component makes up greater than 65 wt. % of the total composition.

15. <sup>14</sup> (currently amended) The antimicrobial composition of claim 1, wherein the freezing point depressant component makes up greater than 70 wt. % of the total composition.

16. <sup>15</sup> (currently amended) The antimicrobial composition of claim 1, wherein the freezing point depressant component makes up greater than 75 wt. % of the total composition.

16-17  
17-18: (canceled)

19. <sup>18</sup> (previously presented) A method for controlling mastitis in milk producing animals, the method comprising:

applying a heptanoic acid antimicrobial composition to a teat of a milk producing animal, wherein the heptanoic acid antimicrobial composition comprises:

0.01 to 5 wt. % heptanoic acid; and  
greater than 60 wt. % of a freezing point depressant component comprising propylene glycol and glycerin.

20. <sup>19</sup> (previously presented) The method of claim <sup>18</sup> 19, wherein the antimicrobial composition is applied in environmental temperatures of below 40°F or is applied to the teat of the milk producing animal that will be exposed to environmental temperatures of below 40°F within 12 hours of the application.

21. <sup>20</sup> (previously presented) The method of claim <sup>19</sup> 20, wherein the environmental temperatures are below 30°F.

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<sup>21</sup>  
22. (previously presented) The method of claim <sup>19</sup>20, wherein the environmental temperatures are below 20°F.

<sup>22</sup>  
23. (previously presented) The method of claim <sup>19</sup>20, wherein the environmental temperatures are below 10°F.

<sup>23-24</sup>  
24-27: (canceled)

<sup>27</sup>  
28. (previously presented) The method of claim <sup>18</sup>19, wherein the freezing point depressant component consists of a mixture of propylene glycol and glycerin.

<sup>28</sup>  
29. (original) The method of claim <sup>18</sup>19, wherein the composition has a freezing point of below 32°F.

<sup>29</sup>  
30. (original) The method of claim <sup>18</sup>19, wherein the composition has a freezing point of below 20°F.

<sup>30</sup>  
31. (original) The method of claim <sup>18</sup>19, wherein the composition has a freezing point of below 10°F.

<sup>31</sup>  
32. (original) The method of claim <sup>18</sup>19, wherein the composition has a freezing point of below 0°F.

<sup>32</sup>  
33. (original) The method of claim <sup>18</sup>19, wherein the composition has a freezing point of below -10°F.

<sup>33</sup>  
34. (original) The method of claim <sup>18</sup>19, wherein the composition has a freezing point of below -20°F.

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33. <sup>34</sup> (currently amended) The method of claim <sup>18</sup>18, wherein the freezing point depressant component makes up greater than 65 wt. % of the total composition.

34. <sup>35</sup> (currently amended) The method of claim <sup>18</sup>18, wherein the freezing point depressant component makes up greater than 70 wt. % of the total composition.

35. <sup>36</sup> (currently amended) The method of claim <sup>18</sup>18, wherein the freezing point depressant component makes up greater than 75 wt. % of the total composition.

36. <sup>37</sup> (previously presented) The antimicrobial composition of claim 1, wherein the freezing point depressant component consists essentially of a mixture of propylene glycol and glycerin.

37. <sup>38</sup> (previously presented) The method of claim <sup>18</sup>18, wherein the freezing point depressant component consists essentially of a mixture of propylene glycol and glycerin.

38. <sup>39</sup> (canceled)

39. <sup>40</sup> (canceled)

40. <sup>41</sup> (previously presented) The antimicrobial composition of claim 1, further comprising rheology modifier, lanolin, surfactant, sequestrant, or mixture thereof.

41. <sup>42</sup> (previously presented) The method of claim <sup>18</sup>18, wherein the composition further comprises rheology modifier, lanolin, surfactant, sequestrant, or mixture thereof.